

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A heat curable extruded adhesive laminate system, said system comprising:

at least one panel of the heat curable extruded adhesive laminate, where said panel is

to be formed into a collapsible tank and the like, said laminate comprising:

a fabric;

an extruded adhesive having a latent thermally activated curing component

comprising a uretdione, said extruded adhesive being coated onto the fabric; and

a thermoplastic resin, said thermoplastic resin being coated onto the extruded

adhesive, thereby forming a heat curable extruded adhesive laminate

wherein the coating of the thermoplastic resin is adhered to the fabric

having a layer of fabric, a layer of adhesive, and a layer of

thermoplastic resin[.]; and

wherein the collapsible tank and the like are formed by fusing panels together and

activating the adhesive's latent thermally activated curing component.

2. (Currently Amended) A heat curable extruded adhesive laminate system, according to claim 1, wherein said system further comprises a compression press, said compression press augments fusion and operates in the temperature range of ~~comprising heating at least a portion of two or more panels of the one pass heat curable extruded adhesive laminate to a~~

~~temperature from about 260°F to about 350° F in a compression press, thereby forming collapsible tanks.~~

3. (Original) The heat curable extruded adhesive laminate system, as claimed in claim 1, wherein said extruded adhesive is comprised of a thermoplastic polyurethane with pendant hydroxyl groups.

4. (Original) The heat curable extruded adhesive laminate system, as claimed in claim 3, wherein said thermoplastic resin is a thermoplastic polyurethane resin.

5. (Original) The heat curable extruded adhesive laminate system, as claimed in claim 4, wherein said thermoplastic polyurethane with pendant hydroxyl groups has a medium to a high level of crystallinity.

6. (Original) The heat curable extruded adhesive laminate system, as claimed in claim 5, wherein the uretdione is a dimer of a diisocyanate, a multi-uretdione adduct or a combination thereof.

7. (Previously Presented) The patch repair system, as claimed in claim 6, wherein the uretdione is selected from the group consisting of dimers of toluene diisocyanate (TDI), methylene diisocyanate (MDI), xylene diisocyanate (XDI), isophorone diisocyanate (IPDI), hydrogenated methylene diisocyanate (H₁₂MDI), and hexamethylene diisocyanate (HMDI).

8. (Previously Presented) A heat curable extruded adhesive laminate system, according to claim 1, wherein the extruded adhesive with a latent thermally activated curing component is further comprised of a cross-linking enhancer.

9. (Previously Presented) The heat curable extruded adhesive laminate system, as claimed in claim 8, wherein the cross-linking enhancer is a compound with at least two hydroxyl groups.

10. (Previously Presented) The heat curable extruded adhesive laminate system, as claimed in claim 9, wherein the cross-linking enhancer is selected from the group consisting of: a hydroxyalkylamide; glycols; abitol; butylene glycol; cyclohexanedimethanol; diethylene glycol; dipentaerythritol; dipropylene glycol; glycerine; hexylene glycol; hydrogenated Bisphenol A; methyl 1,2 propanediol; neopentylglycol; propylene glycol; sorbitol; triethylene glycol; trimethylolpropane; tripentaerythritol, alkoxy and hydroxyl alkoxy cellulose, simple sugars like fructose, sucrose, glucose and starches.

11. (Previously Presented) A heat curable extruded adhesive laminate system, according to claim 1, wherein the extruded adhesive with a latent thermally activated curing component is further comprised of a hydrolytic stabilizer.

12. (Previously Presented) The heat curable extruded adhesive laminate system for producing collapsible tanks, as claimed in claim 11, wherein the hydrolytic stabilizer is

selected from the group consisting of masterbatches of bis(2,6-di-2-propylphenyl)carbodiimide, polycarbodiimide and epoxidized soy bean oil.

13. (Original) The heat curable extruded adhesive laminate system, as claimed in claim 1, wherein the thermoplastic resin is compounded to include other additives such as reinforcing fibers, extenders, fillers, antioxidants, UV stabilizers, thermal stabilizers, flame retardants, glass beads, colorants, antimicrobial agents, dyes, pigments, processing aides (i.e. waxes, fluorinated compounds, silicone compounds, surfactants, polymeric processing aides), density modifiers such as phenolic beads, desiccants, buffers, and IR absorbent compounds to facilitate heating (i.e. carbon blacks, graphite, metal oxides).

14. (Original) The heat curable extruded adhesive laminate system, as claimed in claim 1, wherein the said extruded adhesive is further compounded to include other additives such as reinforcing fibers, extenders, antioxidants, UV stabilizers, thermal stabilizers, flame retardants, fillers, glass beads, colorants, antimicrobial agents, dyes, pigments, processing aides (i.e. waxes, fluorinated compounds, silicone compounds, surfactants, polymeric processing aides), density modifiers such as phenolic beads, desiccants, buffers, and IR absorbent compounds to facilitate heating (i.e. carbon blacks, graphite, metal oxides).

15. (Currently Amended) A one pass heat curable extruded adhesive laminate system, said system comprising:

at least one panel of the one pass heat curable extruded adhesive laminate, where
said panel is to be formed into a collapsible tank and the like, said laminate
comprising:

a fabric;

an extruded mixture comprised of a thermoplastic resin, a thermoplastic polyurethane adhesive having pendant hydroxyl groups, and a latent thermally activated curing component; wherein said extruded mixture is coated onto the fabric, thereby forming a one pass heat curable extruded adhesive laminate[.] and

wherein the collapsible tank and the like are formed by fusing panels together and activating the adhesive's latent thermally activated curing component.

16. (Currently Amended) A one pass heat curable extruded adhesive laminate system, according to claim 15, wherein said one pass system further comprises a compression press, said compression press augments fusion and operates in the temperature range of comprising heating at least a portion of two or more panels of the one pass heat curable extruded adhesive laminate to a temperature from about 260°F to about 350° F in a compression press, thereby forming collapsible tanks..

17. (Currently Amended) The one pass heat curable extruded adhesive laminate system, as claimed in claim 15 4, wherein said extruded adhesive is comprised of a thermoplastic polyurethane with pendant hydroxyl groups.

18. (Original) The one pass heat curable extruded adhesive laminate system, as claimed in claim 17, wherein said thermoplastic resin is a thermoplastic polyurethane resin.

19. (Original) The one pass heat curable extruded adhesive laminate system, as claimed in claim 18, wherein said thermoplastic polyurethane with pendant hydroxyl groups has a medium to a high level of crystallinity.
20. (Previously Presented) The one pass heat curable extruded adhesive laminate system, as claimed in claim 19, wherein the latent thermally activated curing component is a uretdione.
21. (Currently Amended) The one pass heat curable extruded adhesive laminate patch repair system, as claimed in claim 20, wherein the uretdione is selected from the group consisting of dimers of toluene diisocyanate (TDI), methylene diisocyanate (MDI), xylene diisocyanate (XDI), isophorone diisocyanate (IPDI), hydrogenated methylene diisocyanate (H₁₂MDI), and hexamethylene diisocyanate (HMDI).
22. (Currently Amended) A The one pass heat curable extruded adhesive laminate system, according to claim 15, wherein the extruded mixture adhesive with a latent thermally activated curing component is further comprised of a cross-linking enhancer.
23. (Original) The heat curable extruded adhesive laminate system, as claimed in claim 22, wherein the cross-linking enhancer is a compound with at least two hydroxyl groups.
24. (Previously Presented) The one pass heat curable extruded adhesive laminate system, as claimed in claim 23, wherein the cross-linking enhancer is selected from the group consisting of: a hydroxyalkylamide; glycols; abitol; butylene glycol;

cyclohexanedimethanol; diethylene glycol; dipentaerythritol; dipropylene glycol; glycerine; hexylene glycol; hydrogenated Bisphenol A; methyl 1,2 propanediol; neopentylglycol; propylene glycol; sorbitol; triethylene glycol; trimethylolpropane; tripentaerythritol, alkoxy and hydroxyl alkoxy cellulose, simple sugars like fructose, sucrose, glucose and starches.

25. (Previously Presented) A one pass heat curable extruded adhesive laminate system, according to claim 15, wherein the extruded adhesive with a latent thermally activated curing component is further comprised of a hydrolytic stabilizer.

26. (Previously Presented) The one pass heat curable extruded adhesive laminate system, as claimed in claim 25, wherein the hydrolytic stabilizer is selected from the group consisting of masterbatches of bis(2,6-di-2-propylphenyl)carbodiimide, polycarbodiimide and epoxidized soy bean oil.

27. (Original) The one pass heat curable extruded adhesive laminate system, as claimed in claim 15, wherein the thermoplastic resin is compounded to include other additives such as reinforcing fibers, fillers, antioxidants, UV stabilizers, thermal stabilizers, flame retardants, glass beads, colorants, antimicrobial agents, dyes, pigments, processing aides (i.e. waxes, fluorinated compounds, silicone compounds, surfactants, polymeric processing aides), density modifiers such as phenolic beads, desiccants, buffers, and IR absorbent compounds to facilitate heating (i.e. carbon blacks, graphite, metal oxides).

28. (Original) The one pass heat curable extruded adhesive laminate system, as claimed in claim 15, wherein the said extruded adhesive is further compounded to include other

additives such as reinforcing fibers, fillers, antioxidants, UV stabilizers, thermal stabilizers, flame retardants, glass beads, colorants, antimicrobial agents, dyes, pigments, processing aides (i.e. waxes, fluorinated compounds, silicone compounds, surfactants, polymeric processing aides), density modifiers such as phenolic beads, desiccants, buffers, and IR absorbent compounds to facilitate heating (i.e. carbon blacks, graphite, metal oxides).

29. (Previously Presented) The heat curable extruded adhesive laminate system, as claimed in claim 10, wherein the hydroxyalkylamide is N,N,N',N'-tetrakis(2-hydroxyethyl)adipamide, or N,N,N',N'-tetrakis(2-hydroxypropyl)adipamide.

30. (Previously Presented) The heat curable extruded adhesive laminate system, as claimed in claim 29, wherein the hydroxyalkylamide is combined with triglycidyl isocyanurate.

31. (Previously Presented) The one pass heat curable extruded adhesive laminate system, as claimed in claim 24, wherein the hydroxyalkylamide is N,N,N',N'-tetrakis(2-hydroxyethyl)adipamide, or N,N,N',N'-tetrakis(2-hydroxypropyl)adipamide.

32. (Previously Presented) The one pass heat curable extruded adhesive laminate system, as claimed in claim 31, wherein the hydroxyalkylamide is combined with triglycidyl isocyanurate.

33. (Canceled)

34. (Canceled)

35. (Currently Amended) A heat curable co-extruded adhesive laminate system, said system comprising:

at least one panel of the heat curable co-extruded adhesive laminate, where said panel is to be formed into a collapsible tank and the like, said laminate comprising:

a fabric;

a co-extruded adhesive having a latent thermally activated curing component comprising a uretdione, said co-extruded extruded adhesive being coated onto the fabric; and

a co-extruded thermoplastic polyurethane resin, said thermoplastic polyurethane resin being extruded adjacent to the co-extruded adhesive, thereby forming a heat curable extruded adhesive laminate wherein the co-extruded polyurethane resin is adhered to the fabric having a layer of fabric, a layer of adhesive, and a layer of thermoplastic resin[.]; and

wherein the collapsible tank and the like are formed by fusing panels together and activating the adhesive's latent thermally activated curing component.

36. Currently Amended) A heat curable co-extruded adhesive laminate system, according to claim 35 4, wherein said co-extruded system further comprises a compression press, said compression press augments fusion and operates in the temperature range of comprising heating at least a portion of two or more panels of the one pass heat curable extruded

~~adhesive laminate to a temperature from about 260°F to about 350° F in a compression press, thereby forming collapsible tanks.~~

37. (Currently Amended) A heat curable co-extruded adhesive laminate system, as claimed in claim 36, wherein following heating, the formed collapsible tank has ~~there are~~ seams ~~formed~~ which have a strength that exceeds the minimum acceptable performance of 25 lbs/in, after being immersed in water and /or fuel at 160° F for six weeks.

38. (Currently Amended) A heat curable adhesive laminate system, as claimed in claim 2, wherein following heating, the formed collapsible tank has ~~there are~~ seams ~~formed~~ which have a strength that exceeds the minimum acceptable performance of 25 lbs/in, after being immersed in water and /or fuel at 160°F for six weeks.

39. (Currently Amended) A one pass heat curable extruded adhesive laminate system, as claimed in claim 16, wherein following heating, the formed collapsible tank has ~~there are~~ seams ~~formed~~ which have a strength that exceeds the minimum acceptable performance of 25 lbs/in, after being immersed in water and /or fuel at 160° F for six weeks.